Appendix F

Military Load Classifications

The basis for MLC is the effect (load, vehicle speed, tire width, and so forth) a vehicle has on a bridge when crossing. Heavy loads, such as artillery and tanks, make vehicle classification a very important factor when determining what can travel down a route.

REQUIREMENT FOR CLASSIFICATION NUMBERS

Classification numbers are mandatory for all self-propelled vehicles having a total weight of 3 tons or more, as well as all trailers with a payload of 1 1/2 tons or greater (see STANAGs 2010 and 2021). Trailers with a rated capacity of less than 1 1/2 tons are usually combined with their towing vehicles for classification. During the classification process, vehicles are divided and into two further groups—those with trailers (vehicle combination class number [CCN]) and those without (single vehicle classification number)—and calculated accordingly.

PROCEDURES FOR VEHICLE CLASSIFICATION

The actual mathematical computation of a vehicle's MLC is beyond the capability of route recon teams. However, temporary procedures are described below. MLC information is found in the vehicle's TM or on the dash's data plate.

TEMPORARY PROCEDURE FOR VEHICLE CLASSIFICATION

When a single vehicle tows another vehicle at a distance less than 30.5 meters and the vehicles are not designed to operate as one unit, the temporary vehicle MLC number may be assigned to this combination. The classification number assigned is nine-tenths the sum of the normal vehicle classification numbers if the total of both classifications is less than 60. If the sum of the two military classification numbers is 60 or over, then the total becomes the MLC number for the nonstandard combination.

$CCN = 0.9\ (A + B)$ *if* $A + B < 60$
$CCN = A + B$ *if* $A + B \geq 60$

where—
A = class of first vehicle
B = class of second vehicle

EXPEDIENT PROCEDURE FOR WHEELED-VEHICLE CLASSIFICATION

It will be necessary, on occasion, to classify a vehicle in the field. Simply observe and compare the unclassified vehicle to a vehicle that is similar. Compare the axle loads, gross weight, and dimensions of the unclassified vehicle with those of a similar classification.

Example: The expedient classification for a wheeled vehicle is estimated to be 85 percent of its total weight. Therefore, you must determine the vehicle's gross weight. Multiply the air pressure in the tires (in pounds per square inch [psi]) by the total area (in square inches) of the tires in contact with the ground. If a gage is not available, use 75 psi as an average value. This yields an approximate weight of the vehicle in pounds. Convert this figure to tons and find 85 percent of the weight in tons. This resulting figure is the expedient classification.

EXPEDIENT PROCEDURE FOR TRACKED-VEHICLE CLASSIFICATION

Tracked vehicles weigh about one ton per square foot of track contact with the ground. By determining the area of track in contact with the ground, the vehicle's gross weight can be assigned. In the case of vehicles that weigh a fraction over whole tonnage, the next higher classification number is assigned.